



# Fiscal Year 2011 In-Progress Review



## Department of the Navy Safety & Occupational Health Program

April 25, 2012

# FY 2012 "Top 40 Worst" Navy and Marine Corps



| Ran<br>k   | Installation                                     | Service         | Lost<br>Days | Lost<br>Day<br>Rate | FY11<br>Rank | 2011 TCIR/5-Yr Trend  | 2011 DART/5-Yr Trend                            |
|--|--|-----------------|--------------|---------------------|--------------|---|---|
| 1  | MCLB & MCB Barstow                               | MARINE<br>CORPS | 2,793        | 175.<br>1           | 2            | <b>OSHA VPP Star Site; USMC FY11 Warrior Preservation Award; SECNAV Safety Excellence Award Nominee</b><br><b>1.6 /-43%</b> |   |
| 3  | MCAGCC Twenty Nine Palms                         | MARINE<br>CORPS | 831          | 83.1                | -            | <b>1.5/-75%</b>   | <b>1.2/-70%</b>                                 |
| 7  | Naval Base Kitsap                                | NAVY            | 1,796        | 59.7                | 10           | <b>3.9/-3%</b>  | <b>1.2/-33%</b>                                 |
| 9  | MC Air Station Cherry Point                      | MARINE<br>CORPS | 744          | 58.0                | 7            | <b>3.2/-14%</b>   | <b>3.2/-15%</b>                                 |
| 11   | Fleet Readiness Center East                      | NAVY            | 2,000        | 57.6                | 11           | <b>5.60/- 28.3%</b>   | <b>2.54/- 49%</b>                               |
| 12   | Joint Expeditionary Base Little Creek-Fort Story | NAVY            | 1,199        | 57.6                | 39           | <b>0.6/0%</b>   | <b>0.2/-33%</b>                                 |
| 13   | Puget Sound Naval Shipyard                       | NAVY            | 7,202        | 55.8                | NA           | <b>OSHA VPP Star Site</b><br><b>5.1/-7%</b>   | <b>3.6/+13</b>                                  |
| 16   | Navy Region Southwest                            | NAVY            | 1,142        | 53.6                | 19           | <b>2.3/-10%;</b>  | <b>4.2/-45%</b>                                 |
| 18   | MC Base Camp Lejeune                             | MARINE<br>CORPS | 1,684        | 51.1                | 31           | <b>3.65/-11%</b><br>(2-Yr Trend - FY10 onwards)   | <b>2.87/-29%</b><br>(2-Yr Trend - FY10 onwards) |
| 22   | Naval Station Great Lakes                        | NAVY            | 922          | 43.6                | 18           | <b>3.4/+48%</b>   | <b>1.4/+100%</b>                                |
| 26   | Joint Base Pearl Harbor-Hickam                   | NAVY            | 1,710        | 37.5                | 34           | <b>OSHA VPP Star Site (Shipyard)</b><br><b>2.4/-49%</b>   | <b>2.4/-49%</b>                                 |
| 30   | Naval Weapons Station Charleston*                | NAVY            | 1,382        | 37.1                | NA           | <b>OSHA VPP Star Site</b><br><b>0.6/ -82%</b>   | <b>0.2/-71%</b>                                 |
| 34   | Fleet Readiness Cntr SW                          | NAVY            | 888          | 34.2                | 29           | <b>2.94/-8 %</b>  | <b>1.59/-3%</b>                                 |
| 35   | Norfolk Naval Shipyard                           | NAVY            | 2,937        | 33.4                | NA           | <b>OSHA VPP Star Site</b><br><b>4.2/-7%;</b>  | <b>3.7/0%</b>                                   |
| 36   | NAVAIRWPN China Lake                             | NAVY            | 1,324        | 31.8                | 28           | <b>1.12/-34%</b>  | <b>0.7/-33%</b>                                 |
| 37   | Portsmouth Naval Shipyard                        | NAVY            | 1,605        | 30.9                | NA           | <b>OSHA VPP Star Site</b><br><b>5.5/+25%</b>  | <b>3/-17%</b>                                   |
| *USAF-led Joint Base Charleston (Charleston AFB and NWS) |  |                 |              |                     |              |   |   |

# Voluntary Participation Program (VPP) Star Site



|  |  |
|--|--|
| Naval Sea Systems Command (NAVSEA)   |  |
| Naval Surface Ships Warfare Center Carderock Division<br>Ships, Philadelphia, PA       | VPP Star February 2011                 |
| Southeast Regional Maintenance Center (SERMC), Mayport,<br>FL                          | VPP Star Aug 2010                      |
| Portsmouth Naval Shipyard, Portsmouth, NH  | VPP Star 2005 and Recertified 2008     |
| Puget Sound Naval Shipyard & Intermediate Maintenance<br>Facility (IMF), Bremerton, WA | VPP Star 2006 and Recertified 2009     |
| Norfolk Naval Shipyard, Norfolk, VA  | VPP Star 2006 and Recertified 2009     |
| Pearl Harbor Naval Shipyard and IMF, Pearl Harbor, HI                                  | VPP Star 2007                          |
| Commander, Navy Installations Command (CNIC)   |  |
| Naval Air Station Jacksonville, FL   | VPP Star July 2010                     |
| Naval Station Mayport, FL  | VPP Star Sept 2009                     |
| Naval Weapon Station Charleston, SC  | VPP Star Sept 2009                     |
| Naval Air Station Key West , FL  | VPP Star Jun 08                        |
| Naval Submarine Base Kings Bay, GA   | VPP Star Apr 2007                      |
| Naval Station Everett, WA  | VPP Star Aug 2010                      |
| Bureau of Navy Medicine (BUMED)  |  |
| Naval Health Clinic Kingsville, TX   | VPP Star March 2011                    |
| Naval Health Clinic Corpus Christi, TX   | VPP Star February 2009                 |
| Naval Facilities Engineering Command (NAVFAC)  |  |
| Naval Facilities Engineering Command Northwest,  | VPP Star May 2011                      |
| Marine Corps Installations West (MCI-W)  |  |
| Marine Corps Base Barstow, Barstow, CA   | VPP Star Jul 2008 and Recertified 2011 |
| OCONUS -VPP Star Equivalent  |  |
| Naval Hospital, Yokosuka, Japan  | VPP Star Equivalent October 2011       |
| Naval Ship Repair and Maintenance Facility, Yokosuka,<br>Japan                         | VPP Star Equivalent October 2011       |
| Naval Ship Repair and Maintenance Facility Detachment,<br>Sasebo, Japan                | VPP Star Equivalent October 2011       |

# Agenda



- Attachment 1 – Briefing Subjects
  - Risk Assessment
  - Risk Control
  - Mishap Investigations
- Attachment 2 – Backup Data
  - 5-year trends
    - Class A Aviation Mishap Rates
    - Military Accidental Fatality Rates
    - Civilian and Military Injury and Illness Rates
    - Threshold Shift Rates – Hearing Loss



# Attachment 1

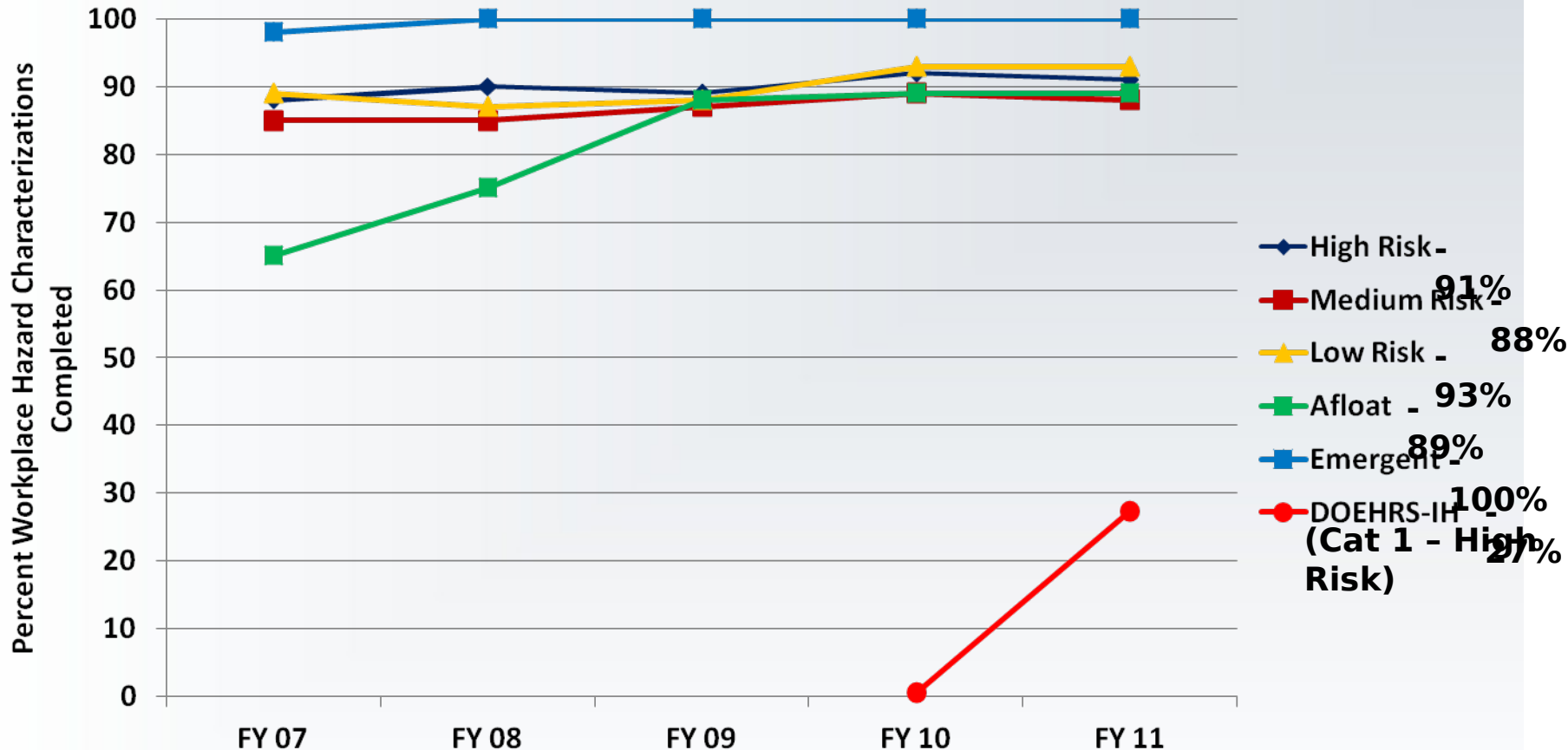
## Briefing Subjects

# Risk Assessment Workplace Visits Completed



- Navy - 95.6%  
(9227/9656)
- USMC - 99.08%  
(5013/5059)

# Risk Assessment Workplace Hazard Characterizations



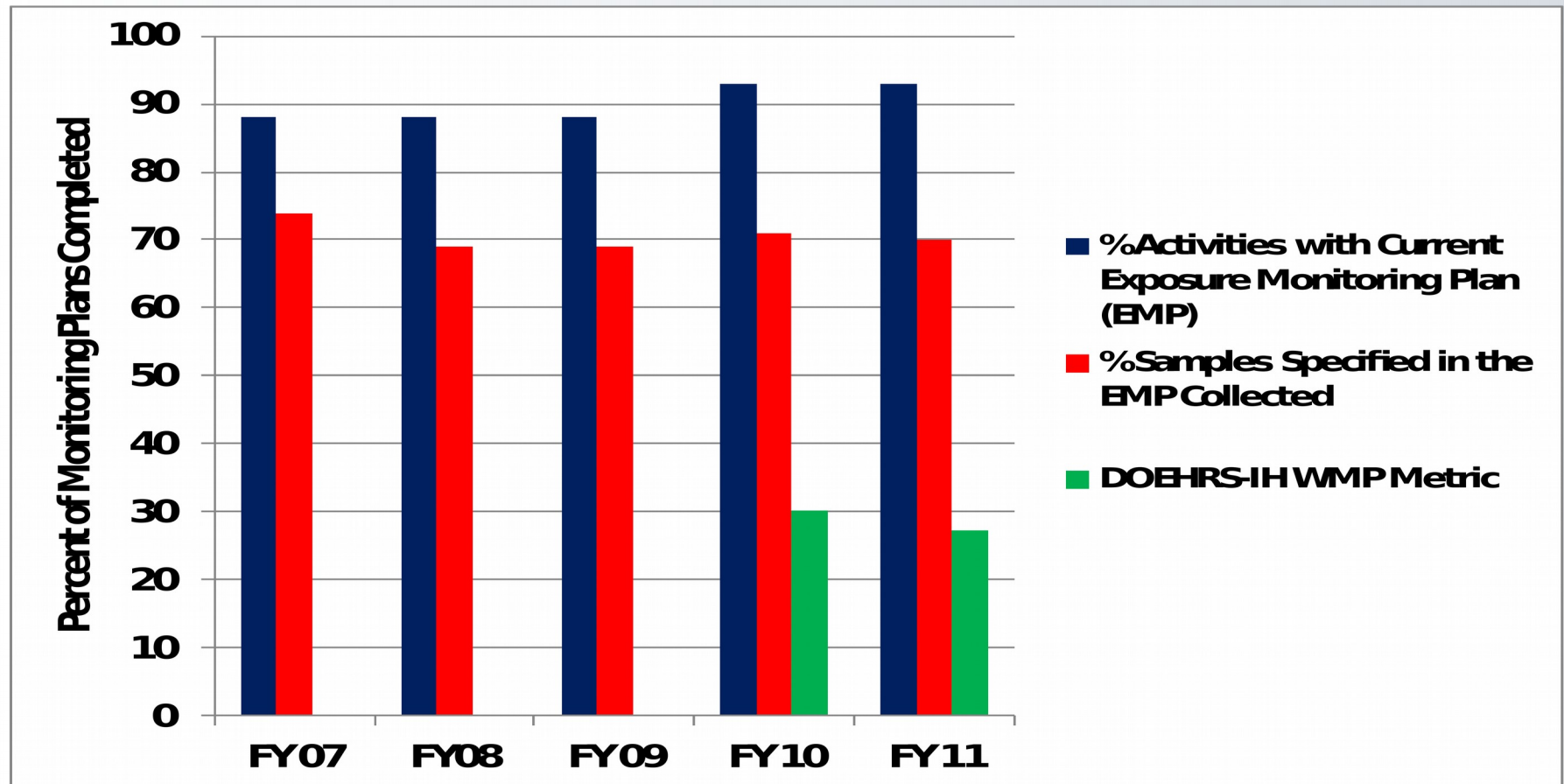
**FY 11 DOEHRS-IH Category 1 (High Risk) Completion Metric: 27.37%**

**% Workplace Hazard Characterizations Completed = # Workplaces Assessed x 100% / # Workplaces Requiring Assessment**

Source: BUMED metrics; DOEHRS-IH- Defense Occupational and Environmental Health Readiness System (Industrial Hygiene)



# Risk Assessment Monitoring Plans Completed



**FY 11 DOEHRS-IH Monitoring Plans Completed Metric: 27.17%**

**% Workplace Monitoring Plan (WMP) Closed = # WMP Started & Completed x 100% / Total # of WMP**

Source: BUMED metrics; DOEHRS IH- Defense Occupational and Environmental Health Readiness System (Industrial Hygiene)



# Risk Assessment Medical Surveillance Completion Rate



- 45.1% (26,737/59,269)

## Occupational Health Program Performance

Not enough manpower to meet DoD requirements for characterizing workplace risks and fully implement DOEHS data entry

Lack of manpower adversely affects DoN's ability to identify what medical surveillance is required and link the required medical surveillance to a longitudinal exposure record

The delta has been identified and validated but not funded for three years

Disparate systems & local systems tracking medical surveillance

USN and USMC Medical Surveillance Working Groups attacking the issue

# Risk Control Hazard Mitigation



|                     | <b>RAC 1<br/>Hazards</b><br>(Mitigated or Abated<br>within 10 Days)     | <b>RAC 2<br/>Hazards</b><br>(Mitigated or Abated<br>within 30 Days) | <b>RAC 3<br/>Hazards</b><br>(Mitigated or Abated<br>within 90 Days) |
|---------------------|---|---|---|
|                     | Percentage of Safety and Health Hazards Mitigated or Permanently Abated |   |   |
| <b>Navy</b>         | <b>47.6%</b>  | <b>45.9%</b>  | <b>47.4%</b>  |
| <b>Marine Corps</b> | <b>100%</b>   | <b>51%<sup>1</sup></b>  | <b>67%<sup>1</sup></b>  |

<sup>1</sup> USMC maintenance cycle/response times have increased due in part to marked reduction of qualified SOH and maintenance personnel. Currently, Marine Corps Installations Command (MCICOM) has ~30 vacant SOH billets.

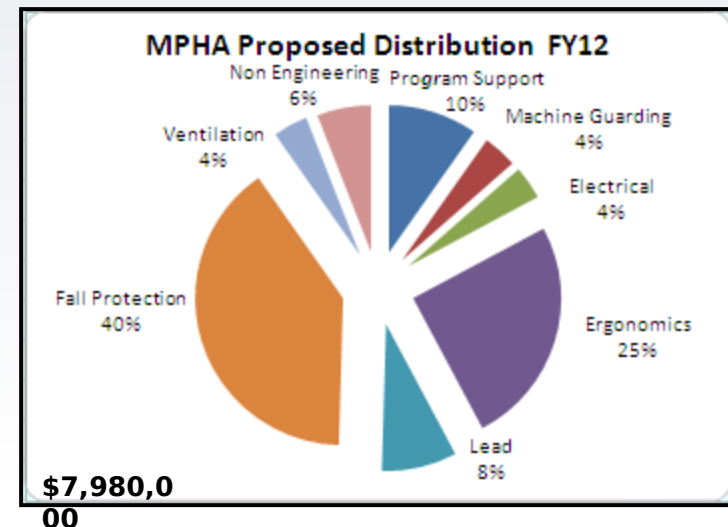
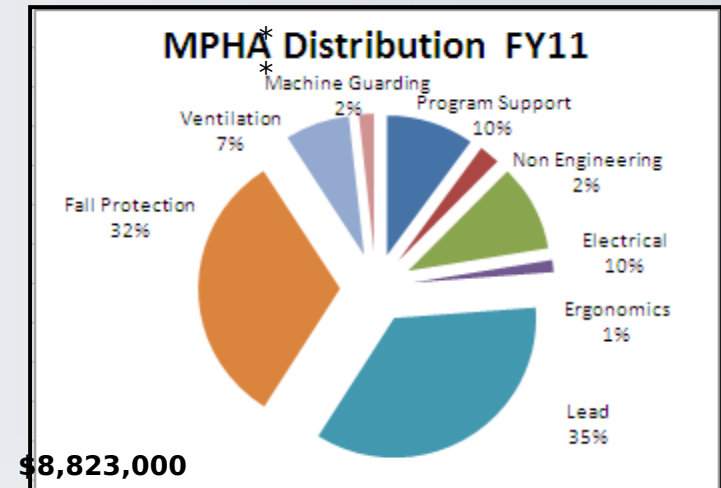
# Risk Control Hazard Abatement Program\*



- Naval Facilities Engineering Command (NAVFAC) centrally manages a dedicated \$8M Hazard Abatement Program that funds mishap prevention strategies, training courses, and the abatement of facility and infrastructure hazards.
- The Hazard Abatement Program seeks to address hazards at multiple activities that can be corrected with common (global) solutions.

\*Navy only

\*\*MPHA - Mishap Prevention and Hazard Abatement Program  
Source: NAVFAC



# Mishap Investigations Requirements



## Military and Civilian

- Naval Safety Center (NAVSAFECEN) will begin in coming months to send automated mishap data feeds to DSES\*

## Military

- NAVSAFECEN is working with BUMED to access medical data
- Analysis underway to better ID reportable injuries
- Data sharing agreement with Veteran's Administration - injuries & illnesses resulting in disability claims

## Civilian

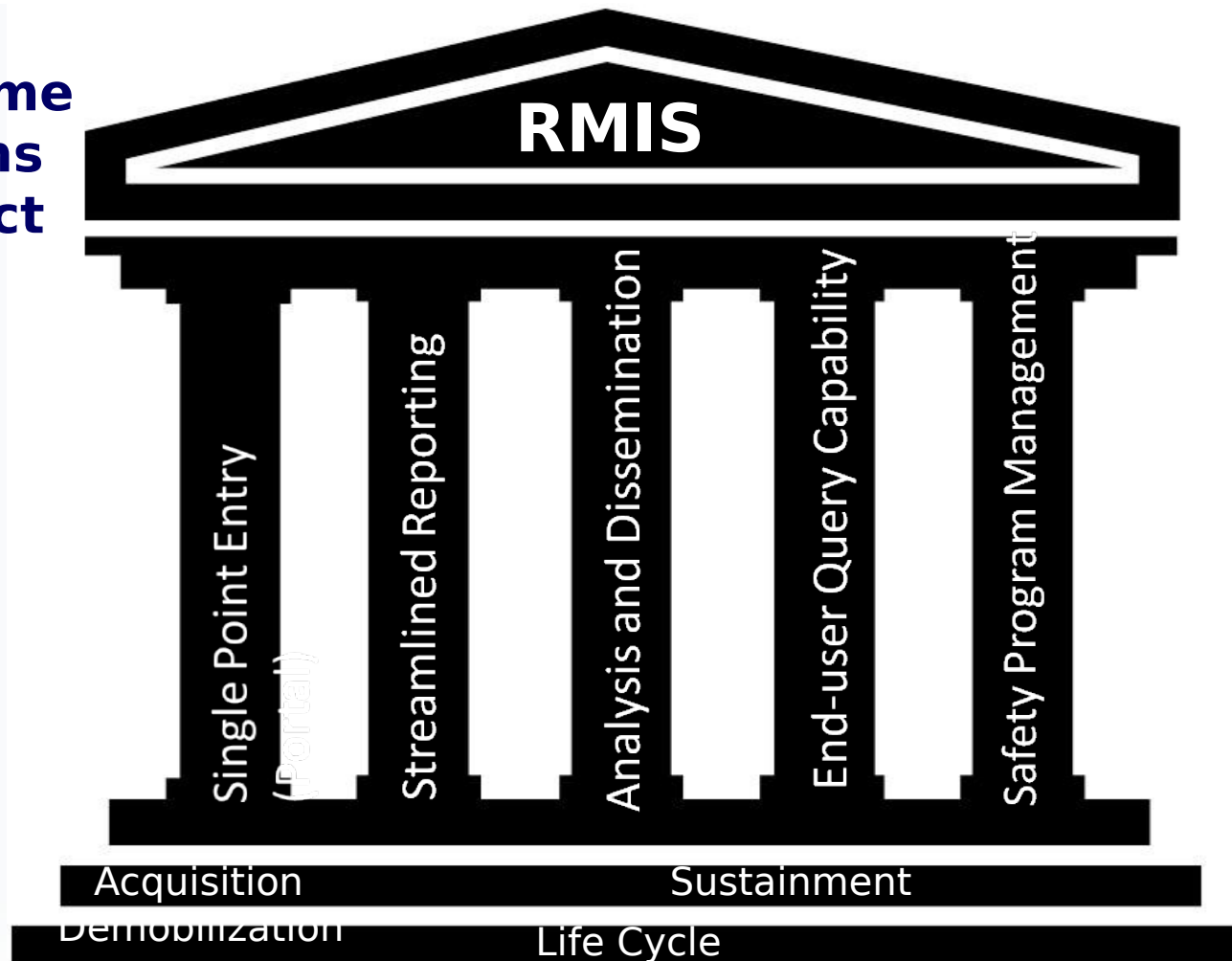
- DoN does not generally use Safety First Event Reporting (SaFER) system
- DoN requested from CPMS\*\* a 10-year trend report on Top 10 civilian natures and causes of injury
- NAVSAFECEN plans to access SaFER data through CPMS ICUC\*\*\* feed to cross-walk with mishap data

\*DSES – Defense Safety Enterprise System; \*\* CPMS - Civilian Personnel Management Service; \*\*\*ICUC Injury and Unemployment Division (of CPMS)

Source: Naval Safety Center; CMC Safety Division

# RMIS\* Pillars

- Hazard focused
- Real time
- Systems Construct

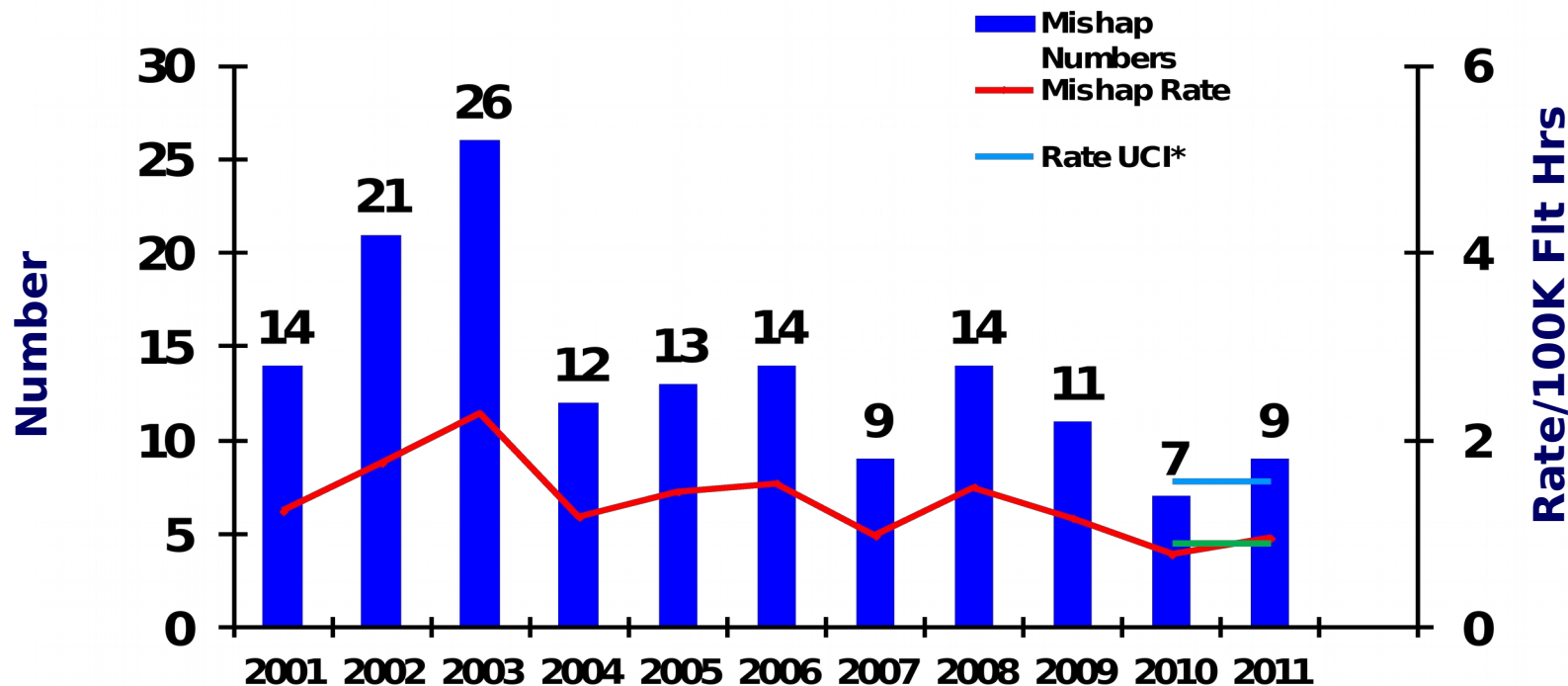


**\*Risk Management Information System**



# Attachment 2 Backup Data

# Aviation Class 'A' Mishap Rates

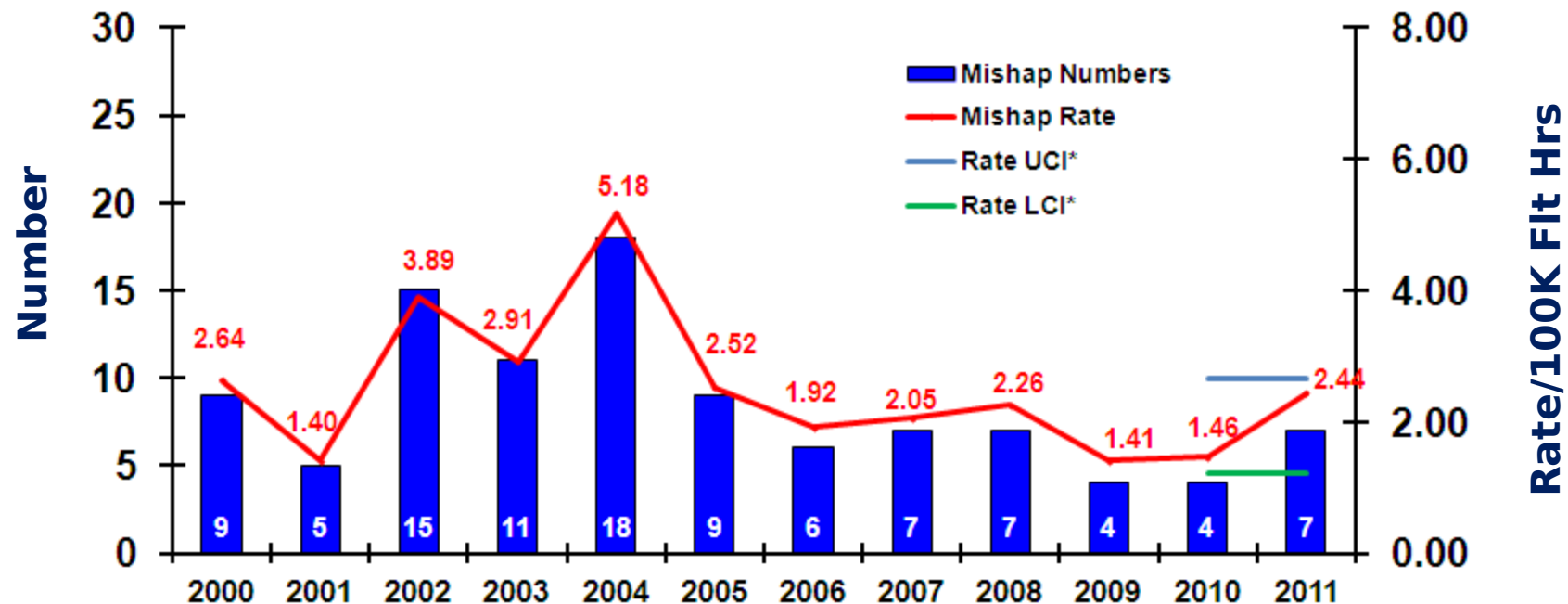


**CLASS A MISHAPS/MISHAP RATE FY COMPARISON:**  
**FY10 MISHAPS/MISHAP RATE:**  
**10-YEAR AVERAGE (FY01-10) MISHAPS/MISHAP RATE:**

| 30-SEP-11 | 30-SEP-10 |
|-----------|-----------|
| 9/0.95    | 10/0.77   |
| 7/0.78    |           |
| 14.10/1.3 |           |
| 9         |           |



# Aviation Class 'A' Mishap Rates

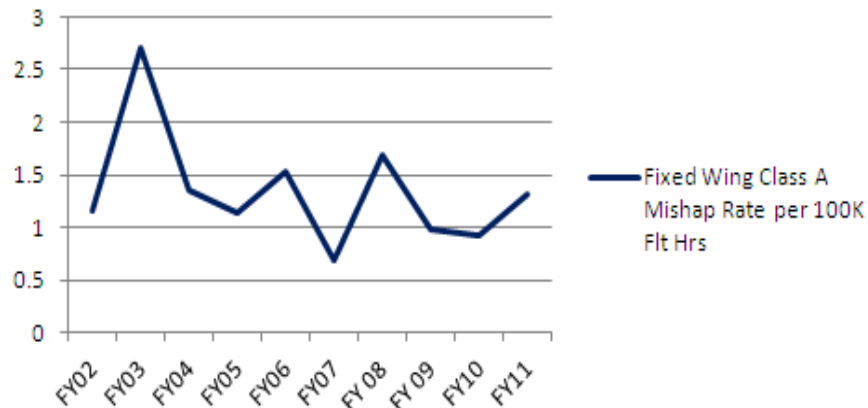


| CLASS A FM/FM RATE FY COMPARISON:<br>FY10 MISHAPS/MISHAP RATE:<br>10-YEAR AVERAGE (FY01-10) MISHAPS/MISHAP<br>RATE: | 30-SEP-<br>11 | 30-SEP-<br>10 |
|---|---------------|---------------|
|   | 7/2.44        | 10/1.46       |
|   | 4/1.46        |               |
|   | 8.60/2.50     |               |

# Class A Mishap Rates - Fixed Wing -

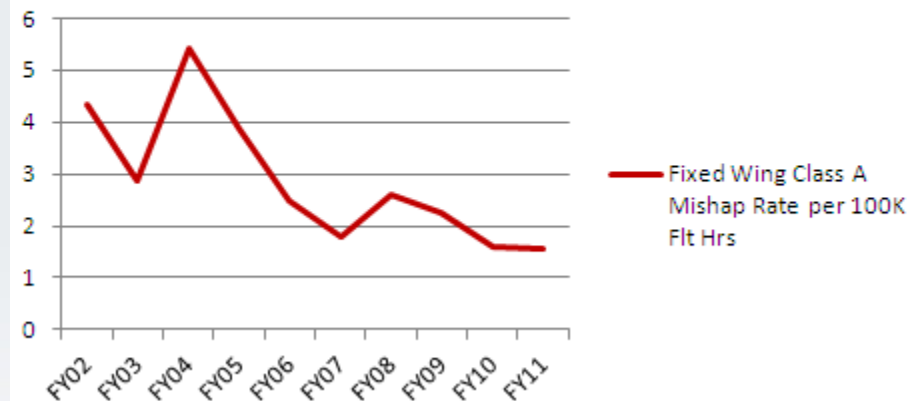


**Navy Class A Mishap Rate  
- Fixed Wing -**



|                                |             |
|--------------------------------|-------------|
| <b>Baseline FY 2002</b>        | <b>1.15</b> |
| <b>FY 2011</b>                 | <b>1.31</b> |
| <b>Reduction from Baseline</b> | <b>+14%</b> |

**USMC Class A Mishap Rate  
- Fixed Wing -**

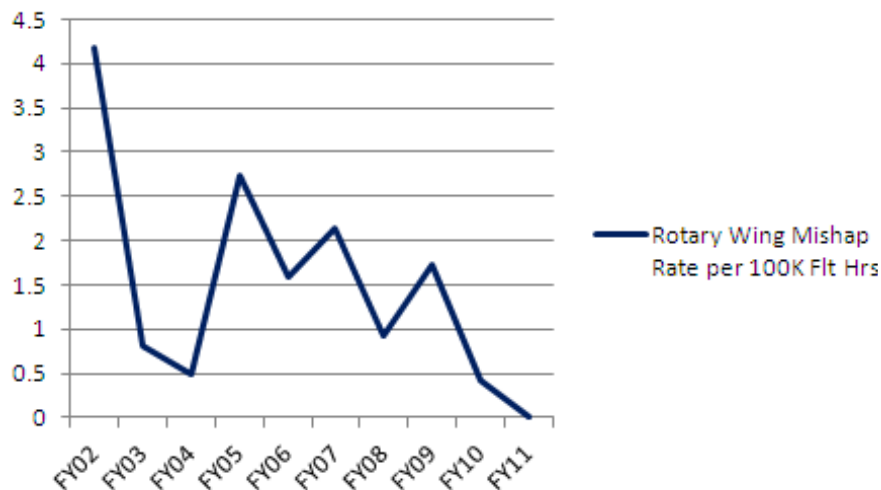


|                                |              |
|--------------------------------|--------------|
| <b>Baseline FY 2002</b>        | <b>4.32</b>  |
| <b>FY 2011</b>                 | <b>1.55</b>  |
| <b>Reduction from Baseline</b> | <b>- 64%</b> |

# Class A Mishap Rate - Rotary Wing -

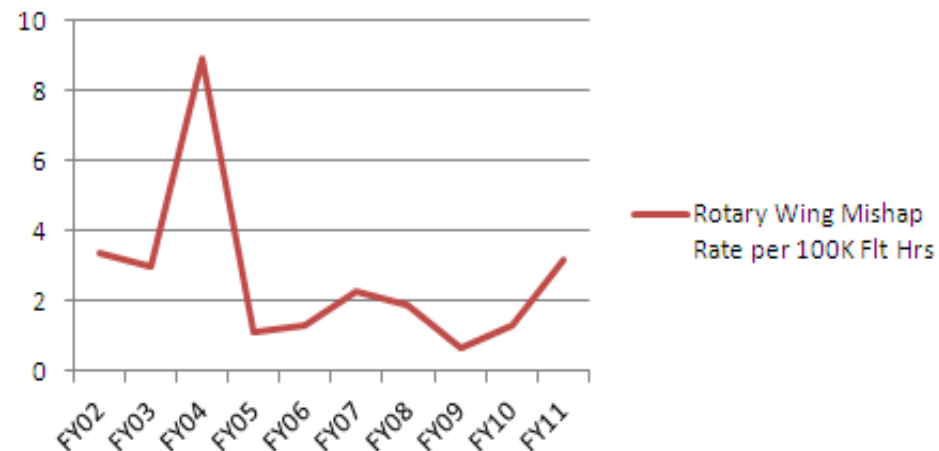


**NAVY Class A Mishap Rate  
- Rotary Wing -**



|                                |              |
|--------------------------------|--------------|
| <b>Baseline FY 2002</b>        | <b>4.18</b>  |
| <b>FY 2011</b>                 | <b>0.00</b>  |
| <b>Reduction from Baseline</b> | <b>-100%</b> |

**USMC Class A Mishap Rate  
- Rotary Wing -**

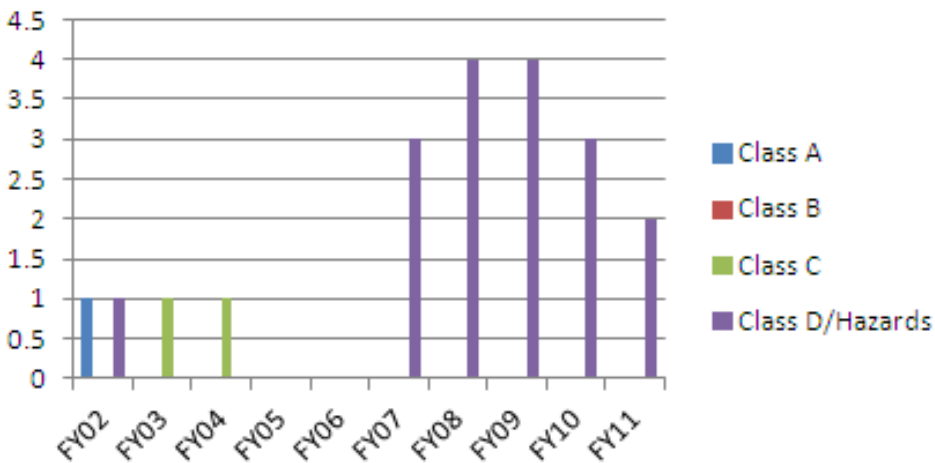


|                                |             |
|--------------------------------|-------------|
| <b>Baseline FY 2002</b>        | <b>3.38</b> |
| <b>FY 2011</b>                 | <b>3.16</b> |
| <b>Reduction from Baseline</b> | <b>-7%</b>  |

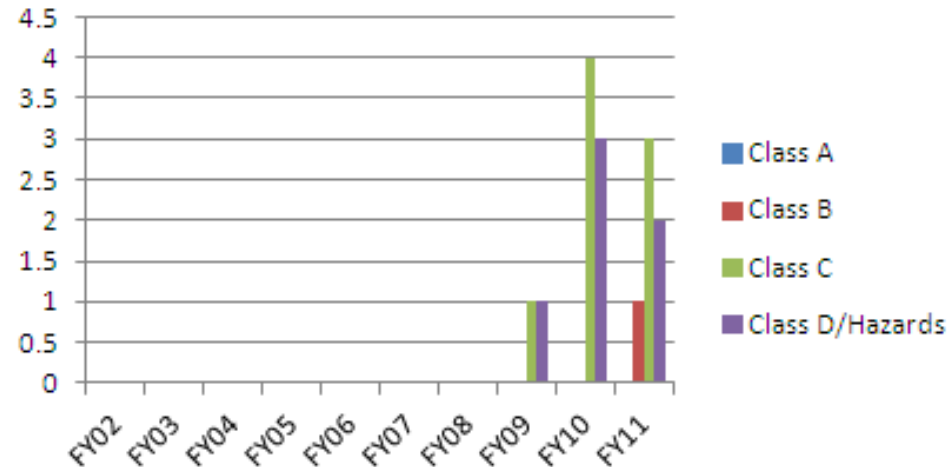
# Unmanned/Remotely Piloted Mishaps\*



Navy UAV Mishaps  
FY02-FY11



USMC UAV Mishaps  
FY02-FY11

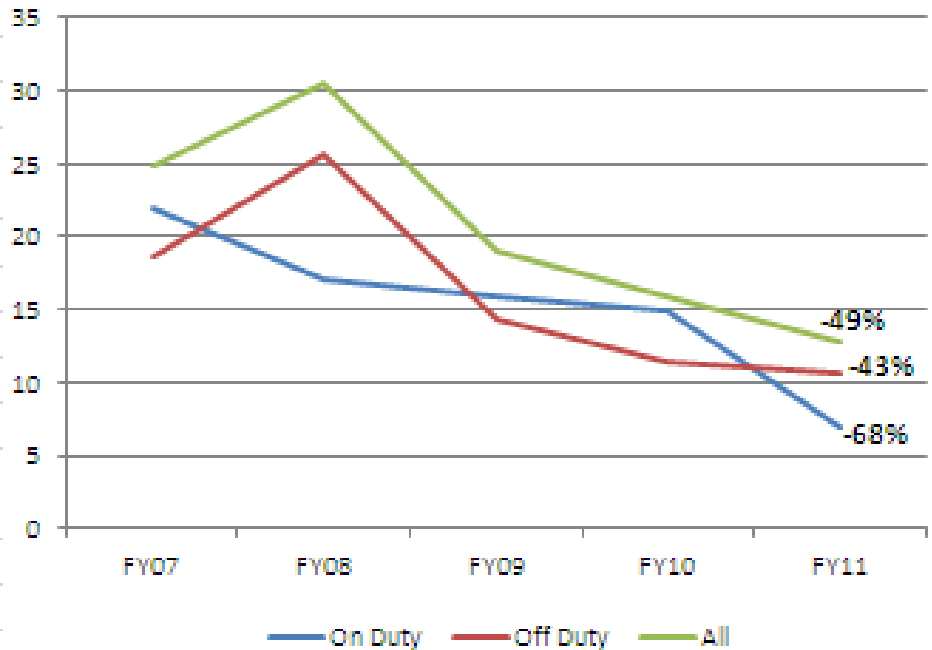


***\*Denominators (flight hours) are currently unavailable for rate calculations***

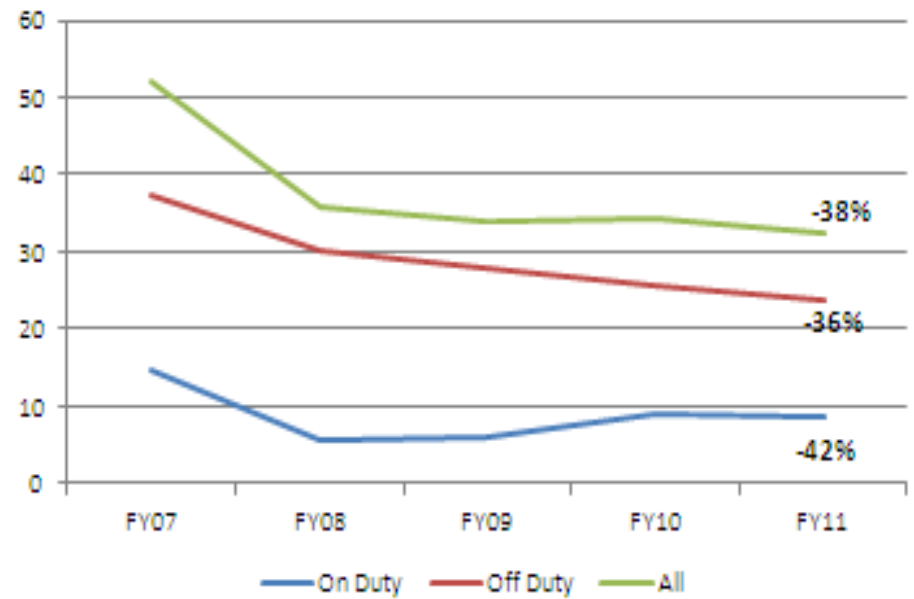
# Military Fatality Rates



**Navy**  
**5-Year Military Fatality Rate Trend**  
**FY07 - FY11**



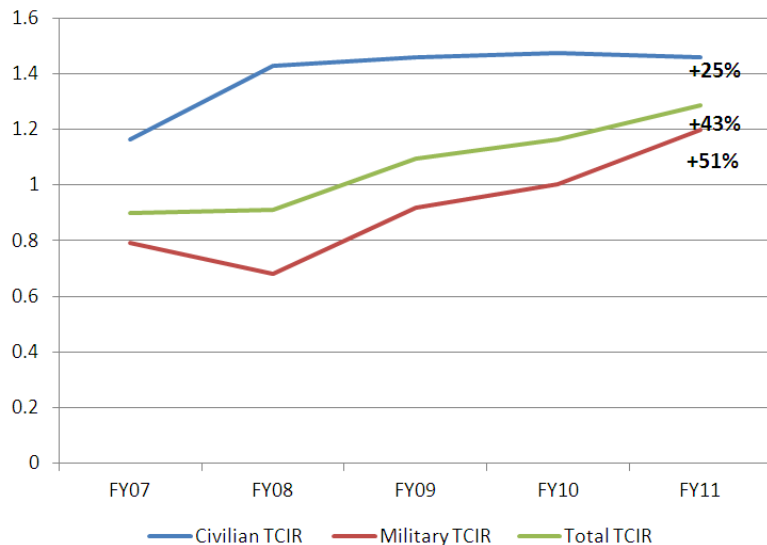
**USMC**  
**5-Year Military Fatality Rate Trend**  
**FY07 - FY11**



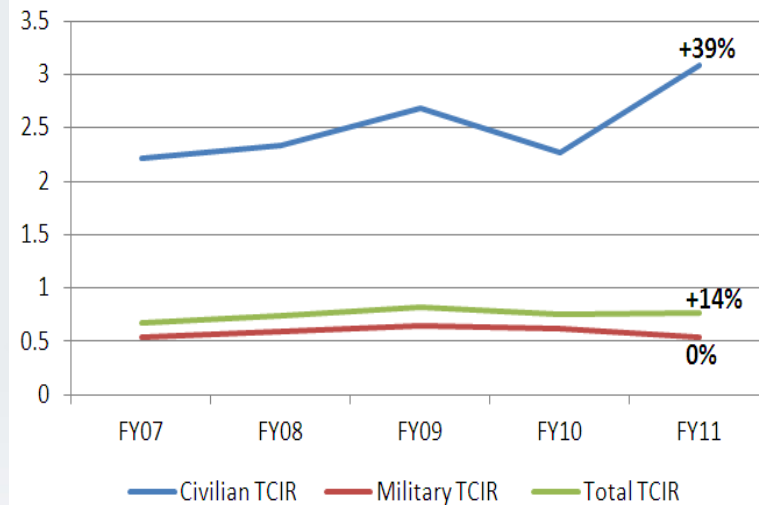
# Injury and Illness Rates (TCIR\*)



**Navy 5-Year TCIR  
FY07-FY11**



**USMC 5-Year TCIR Trend  
FY07-FY11**



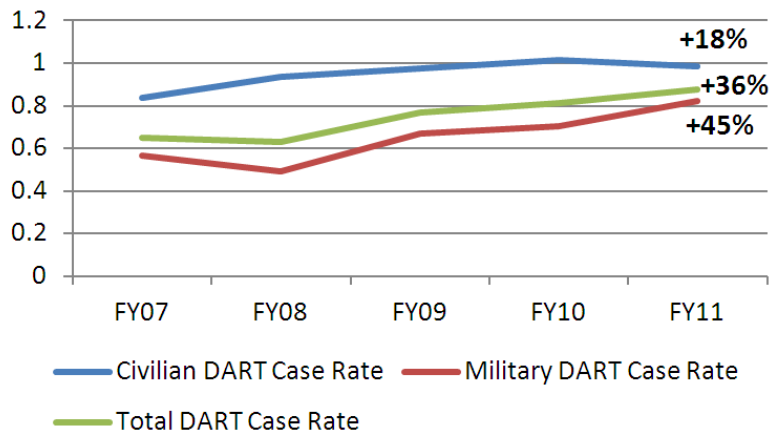
\*TCIR - Total Case Incident Rate - Total Recordables/100 work-years - OSHA 300A

Source: Naval Safety Center

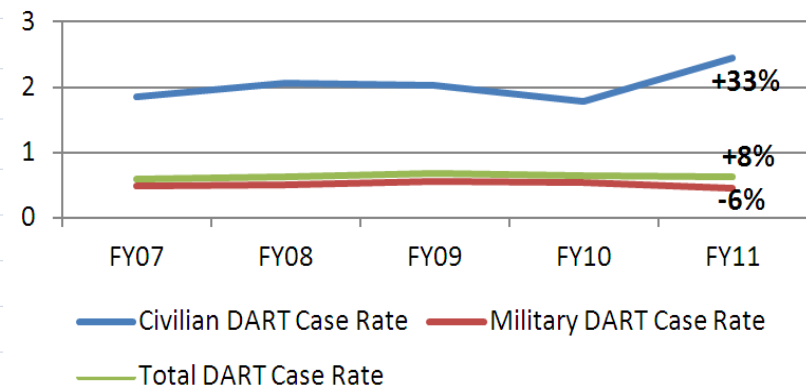
# Injury and Illness Rates (DART\*)



**Navy**  
**5-Year DART Case Rate Trend**  
**FY07-FY11**

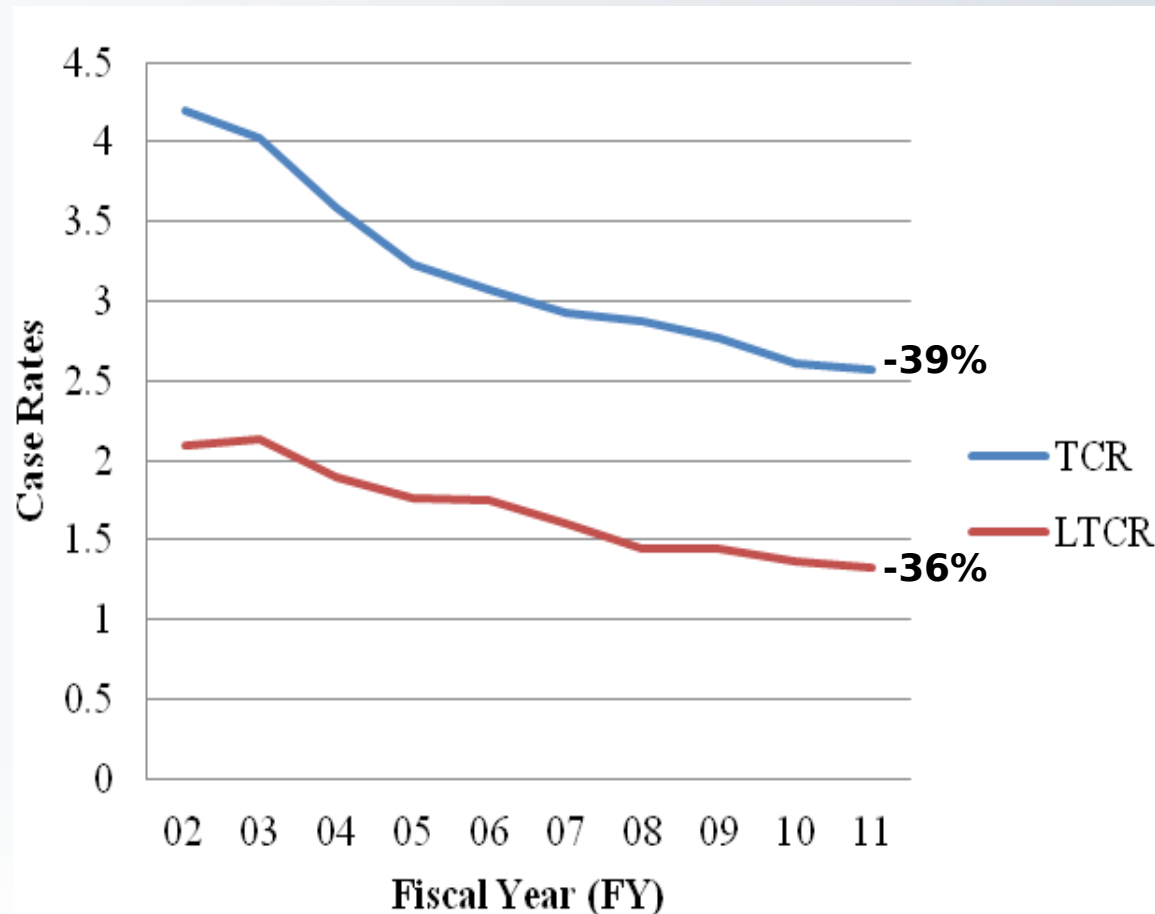


**USMC**  
**5-Year DART Case Rate Trend**  
**FY07-FY11**





# Total Case Rates (TCR) and Lost Time Case Rates (LTCR) FY 02-FY 11



# TCIR and DART Case Rate Increases



## Potential Confounding Factors:

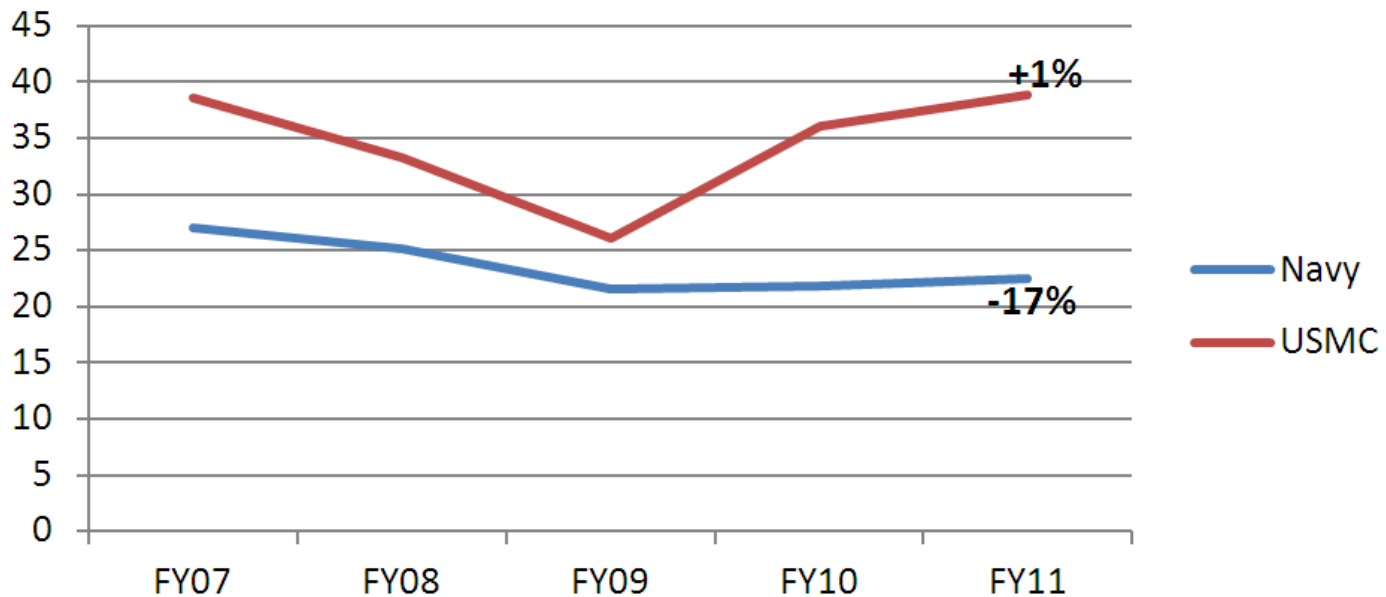
- 1. Increased Injuries***
- 2. More Thorough Reporting***
- 3. FY08 - Improved bridge between ESAMS and WESS\* (Navy)***
- 4. Aviation - Class C reporting threshold changed from 5 LWDs to 1 LWD***  
(OPNAVINST 3750.6R, Naval Aviation Safety Program, 31 Dec 07 (Change 3, page 4-4).)
- 5. FY11 - USMC is down 30 SOH billets***
- 6. Increase in hearing loss claims (e.g., NAVSEA)***
- 7. Aging civilian workforce***
- 8. BRAC realignment***
- 9. Joint Basing***

***There is currently no way to discern the extent of the impact of these factors on rates and trends. We expect RMIS to permit a more accurate and***

# Injury and Illness Rates (Civilian Lost Workday Rate)



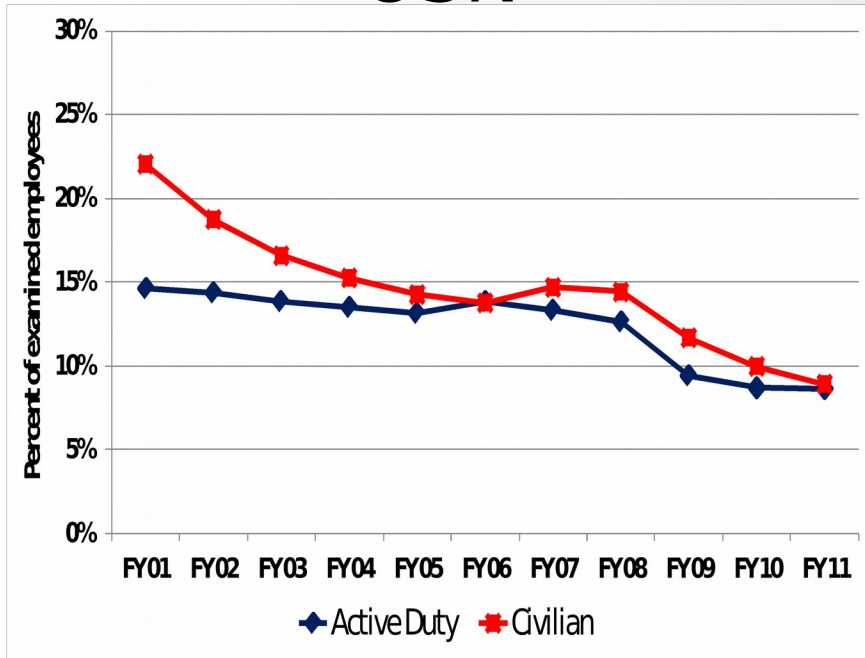
**Navy and USMC  
5-Year Civilian Lost Workday Rate**



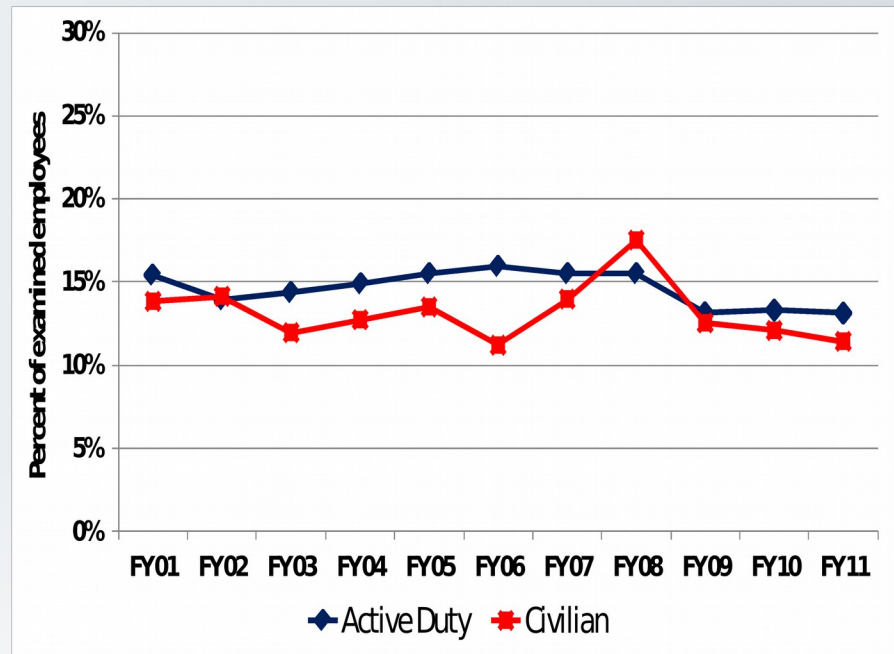
# Permanent Threshold Shift For Hearing Loss



## USN



## USMC



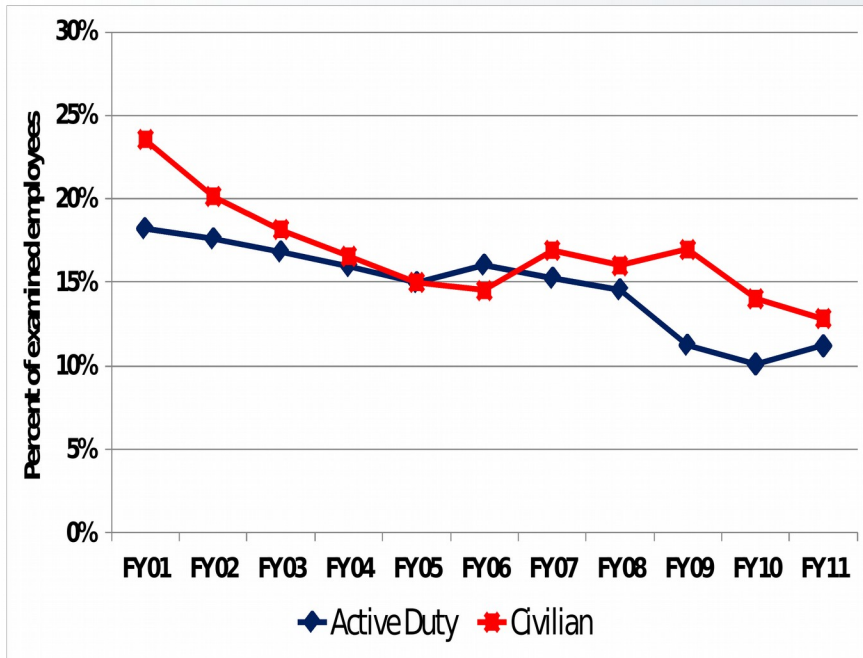
Source: DOEHRS-HC - Defense Occupational and Environmental Health Readiness System - Hearing Conservation

•Data Caveat: Results derived from numerator data (exams performed) and not denominator data (total enrolled)

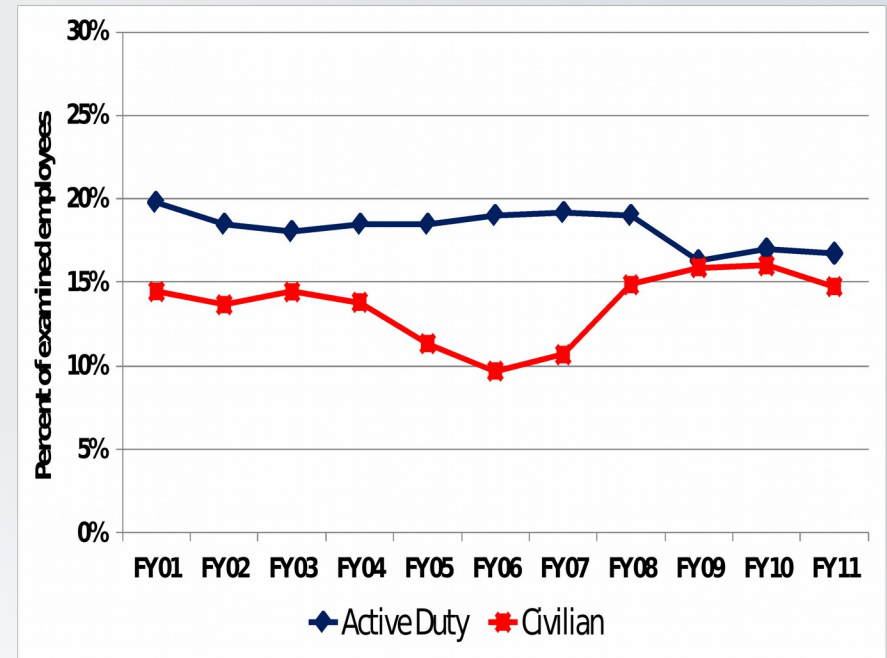
# Significant Threshold Shift



## USN



## USMC



Source: DOEHRS-HC - Defense Occupational and Environmental Health Readiness System - Hearing Conservation

•Data Caveat: Results derived from numerator data (exams performed) and not denominator data (total enrolled)